AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A sharpening unit to sharpen a disk-shaped cutting blade with a bevel with a continuous circular cutting edge, comprising a first grinding wheel and a second grinding wheel acting on a first side and on a second side of said bevel, wherein said first grinding wheel has a finer grain than said second grinding wheel; said first grinding wheel has an inclination such that when the unit is in operation, said first grinding wheel is placed against the first side of the bevel at an inclination greater than the inclination of the first side, in respect to a lying plane of a cutting edge of the blade, while said second grinding wheel has an inclination which is substantially parallel to the second side of said bevel, and said second grinding wheel is constructed and arranged to sharpen the bevel of the blade, while said first grinding wheel is constructed and arranged to apply a reaction force to said blade to prevent or reduce flexure of the blade in a sharpening area and eliminating burrs produced by the second grinding wheel from the cutting edge.

2. (Previously Presented) Sharpening unit as claimed in claim 1, wherein said first grinding wheel and said

second grinding wheel are provided with a movement to move towards and away from the blade according to a direction essentially parallel to axes of rotation of the first grinding wheel and the second grinding wheel.

3. (Previously Presented) Sharpening unit as claimed in claim 2, wherein the movement to move said first grinding wheel and said second grinding wheel towards the blade is controlled so that the first grinding wheel comes into contact with the first side of the bevel before the second grinding wheel comes into contact with the second side of the bevel, and moves out of contact with said first side of the bevel after the second grinding wheel has moved out of contact with the second side of the bevel.

4. (Previously Presented) Sharpening unit as claimed in claim 3, wherein the movement to move the first grinding wheel and said second grinding wheel towards and away from the blade is controlled so that the first grinding wheel moves out of contact with the first side of the bevel after said blade has made at least one turn around its axis subsequent to the second grinding wheel moving away from the second side.

5. (Previously Presented) Sharpening unit as claimed in claim 1, wherein said first grinding wheel and said second grinding wheel are motorized.

6. (Previously Presented) Sharpening unit as claimed in claim 1, wherein the inclination of each said first grinding wheel and said second grinding wheel are equal and opposite in respect to the lying plane of the cutting edge of the blade; said lying plane being essentially orthogonal to the axis of rotation of the blade.

7. (Previously Presented) Sharpening unit as claimed in claim 1, wherein said first grinding wheel has a fine grain of from 7 to 46 according to ISO standards.

8. (Previously Presented) Sharpening unit as claimed in claim 1, wherein said second grinding wheel has a fine grain of between 45 and 91 according to ISO standards.

9. (Previously Presented) A cutting machine to cut rolls of wound web material, comprising:

- at least one disk-shaped blade rotating around an axis of rotation and having a cutting bevel with a continuous cutting edge with a first side and a second side, the first side having a greater radial extension than the second side, and at least said first side having a surface hardening treatment;

- at least one sharpening unit for said blade, with at least a first grinding wheel acting on said first side and a second grinding wheel acting on the second side; wherein said at least one sharpening unit is produced according to claim 1.

10. (Previously Presented) Cutting machine as claimed in claim 9, wherein the inclination of the first grinding wheel in respect of the first side of the bevel and thickness of said surface hardening treatment allow the cutting edge of the blade to remain within the thickness that has been subjected to hardening treatment.

11. (Previously Presented) Cutting machine as claimed in claim 9, wherein said first grinding wheel and said second grinding wheel are equipped with a movement to move each towards and away from the blade according to a direction essentially parallel to a respective axis of rotation of said first grinding wheel and said second grinding wheel, said movement also recovering wear on the blade caused by successive sharpenings.

12. (Currently Amended) Cutting machine as claimed in claim 9, wherein the inclination of each said first grinding wheel and said second grinding wheel are equal and opposed in respect to the lying plane of the cutting edge of the

blade, said lying plane being essentially orthogonal to the axis of rotation of the blade, and wherein the inclination of each said first ~~said~~ side and said second side of the bevel of the blade are different in respect to the lying plane of the cutting edge of the blade, the first side having, in respect to said lying plane, a lesser inclination than the second side.

13. (Previously Presented) Cutting machine as claimed in claim 9, wherein said first side is substantially parallel to the lying plane of the cutting edge of the blade.

14. (Previously Presented) Cutting machine as claimed in claim 12, wherein the difference in inclination between said first side and said second side is at least 1°.

15. (Previously Presented) Cutting machine as claimed in claim 10, wherein the thickness of said hardening treatment of said first side is equal to or greater than 30 micrometers.

16. (Previously Presented) Cutting machine as claimed in claim 9, wherein at least said first side of the bevel has a surface hardness greater than 70 HRC.

17. (Previously Presented) Cutting machine as claimed in claim 9, wherein said blade is made of alloy steel.

18. (Previously Presented) Cutting machine as claimed in claim 9, wherein at least said first side has a surface treatment obtained by penetration of molecules or atoms within structure of a base material forming the blade.

19. (Original) Cutting machine as claimed in claim 18, wherein said surface treatment is a controlled nitriding treatment.

20. (Previously Presented) Cutting machine as claimed in claim 9, wherein at least said first side has a surface treatment including a deposit of a material which is harder than a base material forming the blade.

21. (Previously Presented) Cutting machine as claimed in claim 17, wherein said blade is made of chrome steel containing molybdenum.

22. (Previously Presented) Cutting machine as claimed in claim 9, wherein the inclination of said first side is equal to or less than 9° in respect to said lying plane.

23. (Previously Presented) Cutting machine as claimed in claim 9, wherein said blade has a body delimited by two planes essentially parallel to each other and essentially orthogonal to the axis of rotation of the blade.

24. (Previously Presented) Method for sharpening a disk-shaped blade, to cut rolls of web material, comprising

rotating around an axis of rotation said blade having a cutting bevel, with a continuous cutting edge defined by a first side and a second side, the first side having an extension greater in a radial direction than the second side, and at least said first side having a surface hardening treatment; wherein a first grinding wheel acts on said first side and a second grinding wheel acts on said second side, wherein

- said first grinding wheel has a finer grain than said second grinding wheel;

- said first grinding wheel is placed against the first side of the bevel at an inclination greater than an inclination of the first side, in respect to a lying plane of the cutting edge of the blade;

- said second grinding wheel is placed against the second side of the bevel at an inclination essentially corresponding to the inclination of said second side in respect to said lying plane;

- wherein said second grinding wheel sharpens the cutting bevel, while said first grinding wheel applies a reaction force to said blade to prevent or reduce flexure of the blade in a sharpening area and eliminates burrs produced by the second grinding wheel from the cutting edge.

25. (Previously Presented) Method as claimed in claim 24, further comprising using a blade whose surface hardening treatment has a thickness of at least 30 micrometers.

26. (Previously Presented) Method as claimed in claim 25, wherein the inclination of the first grinding wheel in respect to the first side of the bevel and the thickness of said hardening treatment are such that the cutting edge of the blade remains within the thickness of the hardening treatment.

27. (Previously Presented) Method as claimed in claim 24, wherein said first grinding wheel and said second grinding wheel are motorized.

28. (Previously Presented) Method as claimed in claim 24, wherein said first grinding wheel and said second grinding wheel are moved against said blade with a movement essentially parallel to a respective axis of rotation, said movement also recovering wear of the blade caused by successive sharpenings.

29. (Previously Presented) Method as claimed in claim 28, wherein the first grinding wheel comes into contact with the first side of the bevel before the second grinding wheel comes into contact with the second side of the bevel; and wherein the first grinding wheel moves out of contact with

said first side of the bevel after the second grinding wheel has moved out of contact with the second side of the bevel.

30. (Previously Presented) Method as claimed in claim 29, wherein the movement to move the first grinding wheel and the second grinding wheel towards and away from the blade is controlled so that the first grinding wheel moves out of contact with the first side of the bevel after said blade has made at least one turn about its axis subsequent to the second grinding wheel moving away from the second side.

31. (Previously Presented) Method as claimed in claim 24, wherein the inclination of each said first grinding wheel and said second grinding wheel are equal and opposed in respect of a lying plane of the cutting edge of the blade, essentially orthogonal to the axis of rotation of the blade, and wherein the inclination of each said first side and said second side of the bevel of the blade in respect of the lying plane of the cutting edge of the blade are different, the first side being inclined less in respect of said lying plane than the second side, and wherein said first grinding wheel and said second grinding wheel produce a symmetrical cutting edge in respect of the lying plane of the said cutting edge.

32. (Previously Presented) Method as claimed in claim 31, wherein the difference in inclination between said first side and said second side is at least 1°.

33. (Currently Amended) Method as claimed in claim 24, wherein said first grinding wheel has a fine grain of from 7 to 46 according to ISO standards.

34. (Previously Presented) Method as claimed in claim 24, wherein said second grinding wheel has a fine grain of from 45 to 91 according to ISO standards.

35. (Canceled).

36. (Canceled).

37. (Canceled).

38. (Canceled).

39. (Canceled).

40. (Canceled).

41. (Canceled).

42. (Canceled).

43. (Canceled).

44. (Canceled).

45. (Canceled).

46. (Canceled).

47. (Canceled).

48. (Canceled).